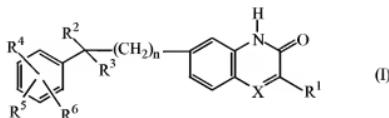


**Listing of Claims:**

*This listing of claims replaces all prior versions, and listings, of claims in the captioned application.*

1. (Currently Amended) A compound of formula (I),



the *N*-oxide forms, the addition salts and the stereo-chemically isomeric forms thereof, wherein

n is 0, 1 or 2;

X is N or CR<sup>7</sup>, wherein R<sup>7</sup> is hydrogen or taken together with R<sup>4</sup> may form a bivalent radical of formula  $\text{CH}=\text{CH}-\text{CH}=\text{CH}-$ ;

R<sup>1</sup> is C<sub>1-6</sub>alkyl

R<sup>2</sup> is hydrogen, hydroxy, C<sub>1-6</sub>alkyl, or C<sub>3-6</sub>alkynyl;

R<sup>3</sup> is a radical selected from

- $-(\text{CH}_2)_s-\text{NR}^8\text{R}^9$  (a-1),
- $-\text{O}-\text{H}$  (a-2), or
- $-\text{O}-\text{R}^{10}$  (a-3),

wherein

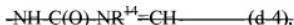
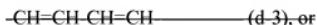
s is 0, 1, 2 or 3;

R<sup>8</sup> is -CHO, C<sub>1-6</sub>alkyl, hydroxyC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkylcarbonyl, di(C<sub>1-6</sub>alkyl)aminoC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxyC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkylcarbonylaminoC<sub>1-6</sub>alkyl, piperidinylC<sub>1-6</sub>alkyl, piperidinylC<sub>1-6</sub>alkylaminocarbonyl, C<sub>1-6</sub>alkyloxy, thiencylC<sub>1-6</sub>alkyl, pyrrolylC<sub>1-6</sub>alkyl, arylC<sub>1-6</sub>alkylpiperidinyl, arylcarbonylC<sub>1-6</sub>alkyl, arylcarbonylpiperidinylC<sub>1-6</sub>alkyl, haloindozolylpiperidinylC<sub>1-6</sub>alkyl, or arylC<sub>1-6</sub>alkyl(C<sub>1-6</sub>alkyl)aminoC<sub>1-6</sub>alkyl;



$R^4$ ,  $R^5$  and  $R^6$  are each independently selected from hydrogen, halo, trihalomethyl, trihalomethoxy,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkyloxy, di( $C_{1-6}$ alkyl)amino, di( $C_{1-6}$ alkyl)amino $C_{1-6}$ alkyloxy or  $C_{1-6}$ alkyloxycarbonyl; or

when  $R^5$  and  $R^6$  are on adjacent positions they may be taken together to form a bivalent radical of formula



wherein  $R^{14}$  is  $C_{4-6}$ alkyl;

aryl is phenyl or phenyl substituted with halo,  $C_{1-6}$ alkyl or  $C_{1-6}$ alkyloxy;

with the proviso that when

$n$  is 0,  $X$  is N,  $R^1$  is  $C_{1-6}$ alkyl,  $R^2$  is hydrogen,  $R^3$  is a group of formula (b-1),  $t$  is 0,  $Z$  is the heterocyclic ring system (c-2) wherein said heterocyclic ring system  $Z$  is attached to the rest of the molecule with a nitrogen atom, and  $R^{12}$  is hydrogen; then at least one of the substituents  $R^4$ ,  $R^5$  or  $R^6$  is other than hydrogen, halo,  $C_{1-6}$ alkyl or  $C_{1-6}$ alkyloxy.

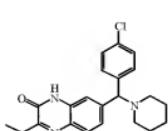
2. (Currently Amended) A compound as claimed in claim 1 wherein

$n$  is 0 or 1;  $X$  is N or CR<sup>7</sup>, wherein  $R^7$  is hydrogen;  $R^1$  is  $C_{1-6}$ alkyl;  $R^2$  is hydrogen;  $R^3$  is a radical selected from (a-1) or (a-2) or is group of formula (b-1);  $s$  is 0, 1 or 2;  $R^8$  is  $C_{1-6}$ alkyl or aryl $C_{1-6}$ alkyl( $C_{1-6}$ alkyl)amino $C_{1-6}$ alkyl;  $t$  is 0, 1 or 2;  $Z$  is a heterocyclic ring system selected from (c-1), (c-2), (c-3), (c-4), (c-5) or (c-11); each  $R^{12}$  independently is hydrogen or  $C_{1-6}$ alkyloxy $C_{1-6}$ alkylamino; each  $R^{13}$  independently is hydrogen; and  $R^4$ ,  $R^5$  and  $R^6$  are each independently selected from hydrogen, halo or  $C_{1-6}$ alkyl.

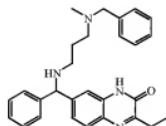
3. (Currently Amended) A compound according to claim 1 wherein

$n$  is 0 or 1;  $X$  is N;  $R^1$  is  $C_{1-6}$ alkyl;  $R^2$  is hydrogen;  $R^3$  is a radical of formula (a-1) or is a group of formula (b-1);  $s$  is 0;  $R^8$  is aryl $C_{1-6}$ alkyl( $C_{1-6}$ alkyl)amino $C_{1-6}$ alkyl;  $t$  is 0;  $Z$  is a heterocyclic ring system selected from (c-1) or (c-2); each  $R^{12}$  independently is hydrogen or  $C_{1-6}$ alkyloxy $C_{1-6}$ alkylamino; each  $R^{13}$  independently is hydrogen; and  $R^4$ ,  $R^5$  and  $R^6$  are each independently selected from hydrogen or halo.

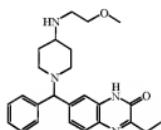
4. (Previously Presented) A compound selected from compound No 5, compound No 9, compound No 2 and compound No 1:



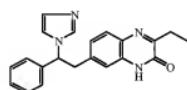
compound 5;



compound 9  
.C<sub>2</sub>H<sub>2</sub>O<sub>4</sub> (1:2) ;



compound 2  
.C<sub>2</sub>H<sub>2</sub>O<sub>4</sub> (2:5) ; and



compound 1 .

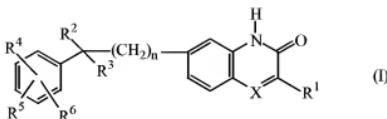
and the *N*-oxide forms, the addition salts and the stereo-chemically isomeric forms thereof.

5. (Cancelled)

6. (Previously Presented) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and as an active ingredient a therapeutically effective amount of a compound according to claim 1.

7. (Cancelled)

8. (Currently Amended - Withdrawn) A method of treating in a subject a PARP mediated disorder, said method comprising administering to the subject a therapeutically effective amount of a compound of formula (I)



the *N*-oxide forms, the pharmaceutically acceptable addition salts and the stereochemically isomeric forms thereof, wherein

*n* is 0, 1 or 2;

*X* is N or CR<sup>7</sup>, wherein R<sup>7</sup> is hydrogen or taken together with R<sup>1</sup> may form a bivalent radical of formula -CH=CH-CH=CH-;

R<sup>1</sup> is C<sub>1-6</sub>alkyl

R<sup>2</sup> is hydrogen, hydroxy, C<sub>1-6</sub>alkyl, C<sub>3-6</sub>alkynyl or taken together with R<sup>3</sup> may form =O;

R<sup>3</sup> is a radical selected from

- (CH<sub>2</sub>)<sub>s</sub>- NR<sup>8</sup>R<sup>9</sup> (a-1),
- O-H (a-2), or
- O-R<sup>10</sup> (a-3),

wherein

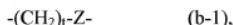
*s* is 0, 1, 2 or 3;

R<sup>8</sup> is -CHO, C<sub>1-6</sub>alkyl, hydroxyC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkylcarbonyl, di(C<sub>1-6</sub>alkyl)aminoC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxyC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkylcarbonylaminoC<sub>1-6</sub>alkyl, piperidinylC<sub>1-6</sub>alkyl, piperidinylC<sub>1-6</sub>alkylaminocarbonyl, C<sub>1-6</sub>alkyloxy, thienylC<sub>1-6</sub>alkyl, pyrrolylC<sub>1-6</sub>alkyl, arylC<sub>1-6</sub>alkylpiperidinyl, arylcarbonylC<sub>1-6</sub>alkyl, arylcarbonylpiperidinylC<sub>1-6</sub>alkyl, haloindozolylpiperidinylC<sub>1-6</sub>alkyl, or arylC<sub>1-6</sub>alkyl(C<sub>1-6</sub>alkyl)aminoC<sub>1-6</sub>alkyl;

$R^9$  is hydrogen or  $C_{1-6}$ alkyl; and

$R^{10}$  is  $C_{1-6}$ alkyl,  $C_{1-6}$ alkylcarbonyl or di( $C_{1-6}$ alkyl)amino $C_{1-6}$ alkyl;

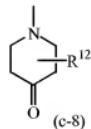
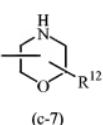
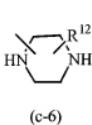
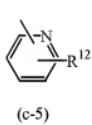
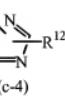
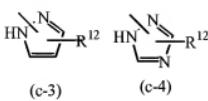
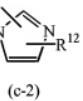
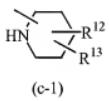
or  $R^3$  is a group of formula



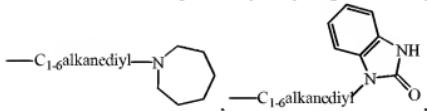
wherein

$t$  is 0, 1, 2 or 3;

$Z$  is a heterocyclic ring system selected from



wherein each  $R^{12}$  independently is hydrogen,  $C_{1-6}$ alkyl, aminocarbonyl, hydroxy,



$C_{1-6}$ alkyloxy $C_{1-6}$ alkyl,  $C_{1-6}$ alkyloxy $C_{1-6}$ alkylamino, di(phenyl $C_{2-6}$ alkenyl), piperidinyl $C_{1-6}$ alkyl,  $C_{3-10}$ cycloalkyl,  $C_{3-10}$ cycloalkyl $C_{1-6}$ alkyl,

aryloxy(hydroxy) $C_{1-6}$ alkyl, haloindazolyl, aryl $C_{1-6}$ alkyl, aryl $C_{2-6}$ alkenyl, morpholino,

$C_{1-6}$ alkylimidazolyl, or pyridinyl $C_{1-6}$ alkylamino; and

each  $R^{13}$  independently is hydrogen, piperidinyl or aryl;

$R^4$ ,  $R^5$  and  $R^6$  are each independently selected from hydrogen, halo, trihalomethyl, trihalomethoxy,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkyloxy, di( $C_{1-6}$ alkyl)amino, di( $C_{1-6}$ alkyl)amino $C_{1-6}$ alkyloxy or  $C_{1-6}$ alkyloxycarbonyl; or

when  $R^5$  and  $R^6$  are on adjacent positions they may taken together form a bivalent radical of formula

- O-CH<sub>2</sub>-O (d-1),
- O-(CH<sub>2</sub>)<sub>2</sub>-O (d-2),
- CH=CH-CH=CH- (d-3), or
- NH-C(O)-NR<sup>14</sup>=CH- (d-4),

wherein  $R^{14}$  is  $C_{1-6}$ alkyl;

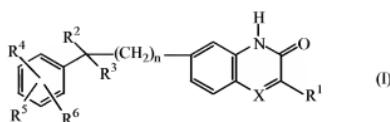
aryl is phenyl or phenyl substituted with halo,  $C_{1-6}$ alkyl or  $C_{1-6}$ alkyloxy.

9. (Cancelled)

10. (Withdrawn) A method for enhancing the effectiveness of chemotherapy of comprising administration of a compound according to claim 1, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy .

11. (Withdrawn) A method for enhancing the effectiveness of radiotherapy of comprising administration of a compound according to claim 1, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy .

12. (Currently Amended- Withdrawn) A combination of a compound of formula (I) with a chemotherapeutic agent



the *N*-oxide forms, the pharmaceutically acceptable addition salts and the stereochemically isomeric forms thereof, wherein

n is 0, 1 or 2;

X is N or CR<sup>7</sup>, wherein R<sup>7</sup> is hydrogen or taken together with R<sup>4</sup> may form a bivalent radical of formula —CH=CH—CH=CH—;

R<sup>1</sup> is C<sub>1-6</sub>alkyl or thienyl;

R<sup>2</sup> is hydrogen, hydroxy, C<sub>1-6</sub>alkyl, C<sub>3-6</sub>alkynyl or taken together with R<sup>3</sup> may form =O;

R<sup>3</sup> is a radical selected from

- (CH<sub>2</sub>)<sub>s</sub>-NR<sup>8</sup>R<sup>9</sup> (a-1),
- O-H (a-2), or
- O-R<sup>10</sup> (a-3),

wherein

s is 0, 1, 2 or 3;

R<sup>8</sup>-and-R<sup>10</sup> are each independently selected from —CHO, C<sub>1-6</sub>alkyl, hydroxyC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkylcarbonyl, amino, C<sub>1-6</sub>alkylamino, di(C<sub>1-6</sub>alkyl)aminoC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxycarbonyl, C<sub>1-6</sub>alkylcarbonylaminoC<sub>1-6</sub>alkyl, piperidinylC<sub>1-6</sub>alkylaminocarbonyl, piperidinyl, piperidinylC<sub>1-6</sub>alkyl, piperidinylC<sub>1-6</sub>alkylaminocarbonyl, C<sub>1-6</sub>alkyloxy, thienylC<sub>1-6</sub>alkyl, pyrrolylC<sub>1-6</sub>alkyl, arylC<sub>1-6</sub>alkylpiperidinyl, arylcarbonylC<sub>1-6</sub>alkyl, arylcarbonylpiperidinylC<sub>1-6</sub>alkyl, haloindozolylpiperidinylC<sub>1-6</sub>alkyl, or arylC<sub>1-6</sub>alkyl(C<sub>1-6</sub>alkyl)aminoC<sub>1-6</sub>alkyl; and

R<sup>9</sup> is hydrogen or C<sub>1-6</sub>alkyl;

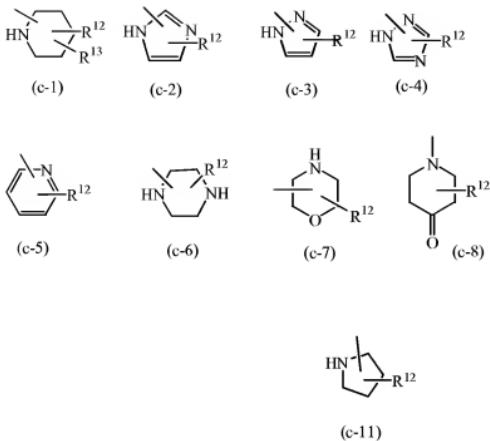
or R<sup>3</sup> is a group of formula

- (CH<sub>2</sub>)<sub>t</sub>-Z- (b-1),

wherein

t is 0, 1, 2 or 3;

Z is a heterocyclic ring system selected from



wherein each R<sup>12</sup> independently is hydrogen, halo, C<sub>1-6</sub>alkyl, aminocarbonyl, amino,

hydroxy, aryl,  
 $\text{---C}_{1-6}\text{alkanediyil---N}$  (cyclohexane ring),  $\text{---C}_{1-6}\text{alkanediyil---N}$  (indolinone ring),  
 C<sub>1-6</sub>alkylaminoC<sub>1-6</sub>alkyloxy, C<sub>1-6</sub>alkyloxyC<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxyC<sub>1-6</sub>alkylamino, arylC<sub>1-6</sub>alkyl, di(phenylC<sub>2-6</sub>alkenyl), piperidinyl, piperidinylC<sub>1-6</sub>alkyl,  
 C<sub>3-10</sub>cycloalkyl, C<sub>3-10</sub>cycloalkylC<sub>1-6</sub>alkyl, aryloxy(hydroxy)C<sub>1-6</sub>alkyl, haloindazolyl,  
 arylC<sub>1-6</sub>alkyl, arylC<sub>2-6</sub>alkenyl, arylC<sub>1-6</sub>alkylamino, morpholino, C<sub>1-6</sub>alkylimidazolyl, or  
 pyridinylC<sub>1-6</sub>alkylamino;  
 each R<sup>13</sup> independently is hydrogen, piperidinyl or aryl;

R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are each independently selected from hydrogen, halo, trihalomethyl, trihalomethoxy, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxy, amino, aminoC<sub>1-6</sub>alkyl, di(C<sub>1-6</sub>alkyl)amino, di(C<sub>1-6</sub>alkyl)aminoC<sub>1-6</sub>alkyloxy or C<sub>1-6</sub>alkyloxycarbonyl, or C<sub>1-6</sub>alkyl substituted with 1, 2 or 3 substituents independently selected from hydroxy, C<sub>1-6</sub>alkyloxy, or aminoC<sub>1-6</sub>alkyloxy; or

when R<sup>5</sup> and R<sup>6</sup> are on adjacent positions they may taken together form a bivalent radical of formula

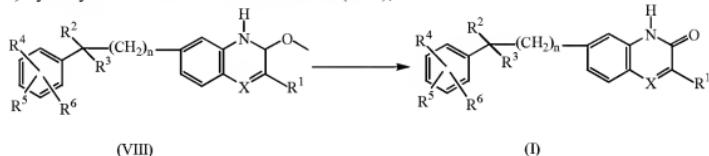


-O-(CH<sub>2</sub>)<sub>2</sub>-O- (d-2),  
 -CH=CH-CH=CH- (d-3), or  
 -NH-C(O)-NR<sup>14</sup>=CH- (d-4),  
 wherein R<sup>14</sup> is C<sub>1-6</sub>alkyl;

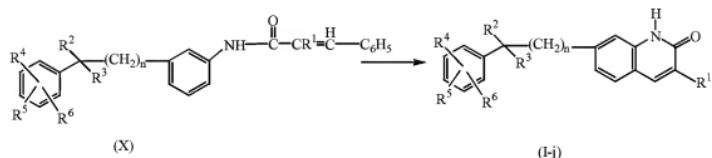
aryl is phenyl or phenyl substituted with halo, C<sub>1-6</sub>alkyl or C<sub>1-6</sub>alkyloxy.

13. (Withdrawn) A process for preparation of a compound as claimed in claim 1,  
comprising

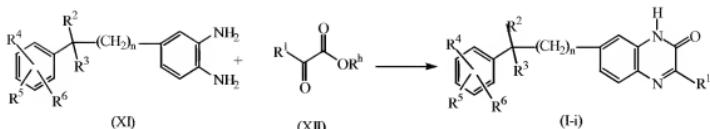
a) hydrolysis of intermediates of formula (VIII),



b) cyclization of intermediates of formula (X), into compounds of formula (I) wherein X is CH, herein referred to as compounds of formula (I-i), and s.



c) condensation of an appropriate ortho-benzenediamine of formula (XI) with an ester of formula (XII) wherein R<sup>b</sup> is C<sub>1-6</sub>alkyl, into compounds of formula (I), wherein X is N, herein referred to as compounds of formula (I-i), in the presence of a carboxylic acid.



14. (Previously Presented) A pharmaceutical composition comprising pharmaceutically acceptable carriers and as an active ingredient a therapeutically effective amount of a compound as claimed in claim 2.
15. (Previously Presented) A pharmaceutical composition comprising pharmaceutically acceptable carriers and as an active ingredient a therapeutically effective amount of a compound as claimed in claim 3.
16. (Previously Presented) A pharmaceutical composition comprising pharmaceutically acceptable carriers and as an active ingredient a therapeutically effective amount of a compound as claimed in claim 4.
17. (Withdrawn) A method of treating in a subject a PARP mediated disorder, said method comprising administering to the subject a therapeutically effective amount of a compound of claim 2.
18. (Withdrawn) A method for enhancing the effectiveness of chemotherapy comprising administration of a compound according to claim 2, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy .
19. (Withdrawn) A method for enhancing the effectiveness of radiotherapy comprising administration of a compound according to claim 2, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy.

20. (Withdrawn) A method of treating in a subject a PARP mediated disorder, said method comprising administering to the subject a therapeutically effective amount of a compound of claim 3.
21. (Withdrawn) A method for enhancing the effectiveness of chemotherapy comprising administration of a compound according to claim 3, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy.
22. (Withdrawn) A method for enhancing the effectiveness of radiotherapy comprising administration of a compound according to claim 3, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy.
23. (Withdrawn) A method of treating in a subject a PARP mediated disorder, said method comprising administering to the subject a therapeutically effective amount of a compound of claim 4.
24. (Withdrawn) A method for enhancing the effectiveness of chemotherapy comprising administration of a compound according to claim 4, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy.
25. (Withdrawn) A method for enhancing the effectiveness of radiotherapy comprising administration of a compound according to claim 4, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy.
26. (Withdrawn) A combination of a compound with a chemotherapeutic agent wherein said compound is a compound of claim 2.
27. (Withdrawn) A combination of a compound with a chemotherapeutic agent wherein said compound is a compound of claim 3.

28. (Withdrawn) A combination of a compound with a chemotherapeutic agent wherein said compound is a compound of claim 4.
29. (Cancelled) A product made by the process of claim 13.
30. (Cancelled)